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ABSTRACT

This study investigated the success rate and the type of teachers' responses to miscues during a six-month tutoring program. Teachers gave prompts, or cues, to help each child recognize unknown words, concentrating on behaviors hypothesized to encourage pupil success and independence in decoding. Previous research had shown that inservice teachers used strategies that did not result in successful decoding by pupils. Data were collected by using the Oral Reading Observation System. The readers were from special and regular education classes, grades two through six, and were at least one or more years behind in their reading achievement. The pupils were divided, at the median, into a high group and a low group determined by standardized test results. Analysis of variance was run to determine if teachers prompted the groups differentially and if there were differential success rates for the groups in response to specific teacher prompts. Results showed that low-ability readers received different kinds of teacher prompts and that prompts based upon graphic textual features were followed by significantly more correct pupil responses than those based on letter-sound and meaning features. An appendix and a bibliography are included. (Author/MB)

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THE EFFECT OF DIFFERENT TEACHER PROMPTING TECHNIQUES ON PUPIL SUCCESS IN DECODING FOR HIGH AND LOW LEVEL READERS DURING ORAL READING[1]

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CS 003 538

"The Effect of Different Teacher Prompting Techniques on Pupil Success in Decoding for High and Low Level Readers During Oral Reading"

Pamela R. Terry and Darla A. Cohen

Previous research has indicated that teachers spend the majority of their time on word recognition skills during periods of reading instruction (Quirk, et al., 1974), but little is known about the specific teacher behaviors used to teach such skills. Studies that have investigated beginning reading instruction, such as the First Grade Studies of Bond & Dykstra (1967) and work with the mentally retarded (Woodcock and Dunn, 1967) have often begun with the assumption that teacher behaviors and reading methods could be treated as a single dimension and discovered later that such an assumption was unwarranted. Teachers using the same curricular materials and methods still have shown wide variation in the manner in which reading instruction is carried out.

A great deal of interest has recently been focused on the types of pupil errors or miscues made during oral reading (Goodman & Burke, 1972). Several studies of beginning reading have found that children seem to make different kinds of miscues at different stages or levels of the reading process (Barr, 1975; Biemiller, 1970; Cohen, 1975; Weber, 1970 a & b). None of these studies, however, has specifically looked at the role played by the teacher in responding to (or ignoring) children's oral reading miscues.

Although some may argue against prompting or responding to a child's miscues (Goodman, 1965), knowledgeable teacher responses to some reading miscues can be very useful in assisting children, especially the mildly handicapped, in the reading process (Cohen, 1975; Levitt, 1972; Lynch and Epstein, 1974).

The focus of this study was on teacher prompting behavior during oral reading with a specific interest in seeing whether or not teachers differentiate between the kinds of prompts or cues they give to more advanced as opposed to less advanced readers. There was also interest in finding out the differential success rates of these children in figuring out unknown words as a result of receiving such teacher prompts.

Thus, the purpose of this study was to compare the type and also the success rate of teacher responses (or prompts) given to low level readers with the type and success rate of prompts given to high level readers. It was predicted that the type of prompt given to low level readers would be significantly different from the type of prompt given to high level readers. A second hypothesis was that the prompts given more frequently to the high level readers would be more successful with that group than with the low level readers and vice versa.

Method

Subjects

The subjects were 19 special education pre-service teachers who were participating in a practicum focusing on teaching reading to the mildly handicapped. Each pre-service trainee was paired with a single pupil and worked with that pupil for the duration of the 6 month tutoring program. All pupils were drawn from regular and special education classes in the public schools. Criteria for admission into the tutoring program were as follows: second and third grade pupils had to be reading at least one year below grade level and fourth, fifth and sixth grade pupils at least two years below grade level. Priority was given to pupils having difficulty in word recognition, in word analysis skills and in using functional decoding strategies during oral reading of continuous text. Table 1 shows demographic information on all pupils participating in this study.

All teacher trainees received instruction with a module designed to increase specific teacher behaviors during oral reading. The general purpose of the Prompting module (Brady, 1975) is to train teachers in a set of decision rules and in specific recommended behaviors to use when responding to pupil miscues in oral reading. The module has the following objectives:

1. Prompt to respond to only those miscues that change the meaning of what is being read.
2. Use the following prompts when responding to a pupil miscue: Structural Analysis, Attention, Pattern, Phonics, or Context.

These suggested teacher behaviors were derived from field observations (Epstein and Lynch, 1974), studies of reading strategies of handicapped and poor readers (Biemiller, 1970; Cohen, 1975; Levitt, 1972) and Minicourse 18: Teaching Reading as Decoding (Ward and Skailand, 1973). At the time this data was gathered, most of the teacher trainees had reached a criterion level of generating those recommended behaviors and employed them more often than other dysfunctional strategies.

The reading tutoring program was conducted after school hours in a laboratory classroom. Each child was tutored for one hour twice a week. Each of these sessions consisted of a 15 minute oral reading lesson, during which the pupil read from a continuous text and was interrupted or prompted by the tutor on the basis of the particular miscue made. The remainder of the time was spent on instruction in specific word recognition and comprehension skills indicated as necessary by diagnostic test results. All pupils read materials approximately one grade level above their instructional level so that a sufficient number of miscues requiring prompting would occur. The total number of words read per lesson varied depending upon the child's level and rate, but all pupils were reading with an error rate of approximately 10%.

Materials

The reading materials used by the pupils were taken from the New Open Highways Series (Johnson et al., 1974) and Lippincott's Basic Reading (McCracken et al., 1963). Two of the children were reading below the levels of the above materials so they were placed in the Monster Books (Blance, et al., 1973) and the Holt Satellite books (Applebaum, S. et al., 1973). The mean grade level of the books read by Group one (low readers) was 2.57 and the mean level of the books read by Group two (high readers) was 3.91. For all the lessons analyzed, all children were reading in the same book with the exception of those children reading in the Monster Books and Satellite books. Due to the nature of these two series, the children changed books but remained at the same level.

Observation System

The Oral Reading Observation System (OROS) (Brady, Lynch, Cohen, 1976) was used to code all the oral reading lessons conducted. This is a low inference observation system contextually specific to oral reading. It discriminates between pupil miscues, teacher prompting behaviors and pupil responses to those prompting behaviors. For the purposes of this study the following ten categories of teacher prompts and two categories of pupil responses to prompts were used:

1. (31) Letter Name Prompts
2. (32) Spelling
3. (33) Structural
4. (34) Attention
5. (41) Isolated Sounds
6. (42) Sound Out Word
7. (44) Patterns (Word Families)

8. (45) Sounds Within Words/Phonics Rules
9. (51) Word Meaning
10. (52) Context

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11. (62) Pupil Correct Response to Prompt
12. (64) Pupil Exact Text Word Response after Prompt

(For complete definitions of the OROS categories see Appendix A).

Four coders were trained at the beginning of the tutoring project with simulated and live tapes of oral reading lessons and were given periodic maintenance checks throughout the year. On a simulated tape used for the maintenance check nearest the time of this study, the mean percentage of agreement with the criterion was .82 (range .75 to .83) and the mean intracoder agreement was .86 (range .85 to .87). Coefficients reported are Flander's modification of Scott's phi corrected for chance agreement (Frick & Semmel, 1974).

Experimental Procedures

There were 19 tutor-pupil pairs participating in the study. Reading level was determined by computing the readability of the book the pupil was reading in at the time of the study. The mean of this reading level score and the pupil's post-test total reading score on the Woodcock Reading Mastery Tests was used to rank order the pairs. The pupils were then dividied at the median into two groups, high and low level readers. The mean score for group one (low-level) was 2.24 (range 1.1 to 3.3) and the mean score for group two (high level) was 3.77 (range 3.3 to 4.9).

The oral reading observation data collected from four consecutive lessons during the last three weeks of the tutoring program were collapsed. Since both groups were reading for 15 minutes with a 10% error rate, the low level readers produced a lower frequency of miscues than the high level readers. Due to this variation in the number of opportunities each tutor had to respond to miscues, and consequently in the number of prompts generated, all frequency data concerning teacher prompts and success rates were converted into percentages.

The percentage of time each prompt occurred was determined by the total number of all teacher interruptions divided by the number of times each individual prompt category occurred. (Teacher management and feedback prompts were not considered in this study although they were included in the total number of prompts generated.) The percentage of correct responses was determined by the number of times a particular prompt occurred divided by the number of times the pupil responded to those prompts with a correct response, but was not able to provide the exact text word. The percentage of exact word responses was determined by the number of times a particular prompt was given, divided by the number of times the pupil responded to those prompts with the exact text word.

The design was a repeated measures analysis of variance. The two levels of groups were high and low level readers. The analysis compared the same subjects over 10 different prompting categories. The group sizes were unequal (9 low and 10 high) but the ANOVA program used to analyze the data adjusts for unequal numbers of subjects, therefore all data was analyzed. Tukey's tests were run on all possible pairwise comparisons of prompts as well as comparing both groups of readers on each individual category of prompt.

Results and Discussion

As seen in Table 2, there was no significant difference between groups in the overall percentage of time teacher prompts occurred. This was to be expected, as the tutors had been instructed to adjust the difficulty of the reading material so as to maintain an approximate miscue rate. This result shows that the 10% miscue rate did provide a consistent opportunity for prompting children reading at higher as well as lower reading levels.

The analysis of variance showed a highly significant prompt effect, $F(9, 153) = 36.55$, $p < .0000$, indicating that the ten categories of teacher prompts did not occur equally often. It can be seen, in Figure 1, that some types of prompts accounted for a much higher percentage of total prompts than others. The tutors of both groups of readers were clearly concentrating their prompting efforts on the five suggested prompting categories -- in frequency of occurrence, structural (33), context (52), attention (34), phonics (45), and pattern (44) prompts -- to the virtual exclusion of other less efficient prompting categories.

In examining success rate, there was a significant group effect for both correct responses, $F(1, 17) = 4.78$, $p < .04$, and exact word responses, $F(1,17) = 5.34$, $p < .03$, to teacher prompts. The readers in the higher group were more likely than those in the lower group to determine the desired text word following a teacher prompt.

There was also a significant prompt effect when examining success rate, both for correct responses and exact word responses: $F(9, 153) = 6.23$, $p < .0000$, and $F(9,153) = 9.13$, $p < .0000$ respectively. Thus, some prompts had a much higher likelihood of resulting in pupil decoding success than others.

Specifically, attention prompts (34) and structural prompts resulted in the highest success rates.

When considering success rate, there was, however, no group by prompt category interaction, indicating that the high and low level readers in this study did not differ greatly in which prompting categories they found to be successful or unsuccessful clues to decoding.

A major finding of interest was the highly significant interaction between groups and categories of prompts in the percentage of time teacher prompts occurred, $F(9, 153) = 5.01$, $p < .0000$. Although children in both the higher and lower groups received the five recommended prompts more often than the other five prompts available, each group had different rank orders of the percentage of time the five prompts occurred. Therefore, it seems evident that teachers do differentiate the pattern of prompts they give to children at different levels of reading skill by emphasizing certain prompts with low readers and other prompts with high-level readers. The first hypothesis was, thus, supported.

Although, as seen in Figure 1, both high level and low level readers received equally high percentages of structural (33) prompts, there were significant discrepancies between the groups in the percentages of attention (34), context (52), and pattern (44) prompts given. In order to compare the high and low groups of readers on individual prompts, post-hoc Tukey's comparisons were run. Results of the tests showed that the higher-level readers received significantly greater percentages of attention prompts, $q(18) = -7.756$, $p < .01$, compared to the lower-level readers. There was also a corresponding discrepancy between the groups in the children's success rates following attention prompts. When children in the lower group were given attention prompts, they were far less likely than those in the higher group

to be able to figure out the unknown word. In spite of this, attention prompts still accounted for the most successful responses for the lower group. The better readers participating in the tutoring program not only received significantly greater percentages of attention prompts from their tutors, but they also were significantly more successful in decoding the exact text word following attention prompts $q\ (18) = -4.821$, $p < .01$. This result gives partial support to the second hypothesis that the groups would show significantly different success rates for those prompts which were given significantly more often to one group than to the other.

An explanation offered to account for this result is that the better readers may have become sufficiently familiar with the information imparted through teacher prompts so that a mere indication by the teacher to attend to the word was adequate information for them to run through word attack strategies until they could decode the exact text word. The lower group of readers, on the other hand, was not able to use attention cues in this manner. They seemed to require more specific types of information in order to decode an unknown word.

Attention prompts were, however, the only category of prompt for which the groups had significantly different success rates. In spite of the fact that the lower group of readers received significantly greater percentages of context (52) prompts, there was no corresponding difference between groups in success rate following context prompts. Thus the second hypothesis was not fully supported.

The lower group of readers received significantly higher percentages of both pattern (44) prompts and context (52) prompts with respective q values of $q\ (18) = 5.078$, p .01 and $q\ (18) = 8.928$, p .01. There were no significant differences between groups, however, in the success rates the children had

when responding to pattern and context prompts with either correct (although not exact) answers or exact text words.

The tutors, thus, gave the lower readers a higher percentage of structural and context prompts than they gave to the higher readers, even though both groups had equal success rates using such prompts. The fact that the lower group of readers received greater percentages of context prompts seemed surprising at first, as it had been anticipated that teachers would be more likely to draw better reader's attention to meaning, while concentrating more on graphemic or phonic analysis skills with the lower group of readers.

The reason why context cues accounted for the highest percentage of prompts received by the lower readers may be that these readers do not have sufficient prerequisite skills to take advantage of prompts relating to specific phonic rules or other prompts requiring some minimal knowledge base. In fact, the higher group was significantly more successful in responding correctly to pattern isolated sounds and phonic rules prompts. Context prompts, on the other hand, constitute a familiar strategy for the lower readers, having been previously available for use with oral language development. The higher level readers, on the other hand, can use context prompts with good success rates and, in addition, have mastered other reading strategies to an extent where they can succeed in decoding unknown words with a simple reminder in the form of an attention prompt.

In summary, the major findings of this study were:

1. Teachers are able to differentiate the types of prompts they give most frequently to high and low level readers. In this study the teachers gave significantly higher percentages of context and pattern prompts to the low readers while giving significantly higher percentages of attention prompts to the high readers.

2. The success rate of children decoding a word following a particular teacher prompt varies with their reading skill level. Better readers are able to show more success with a wider variety of teacher prompts. Two of the recommended prompts - attention and structural - resulted in the highest success rates for both groups. The higher level readers were significantly more successful in decoding unknown words using phonics rules and pattern prompts.
3. Teachers who are trained in the use of a wide variety of teacher prompting behaviors are able to use different patterns of prompting behaviors with children showing higher and lower levels of reading skills. This implies that if teachers are given training in a repertorie of prompting behaviors (instead of relying on the overused and relatively unsuccessful "sound it out" prompt) they have the ability to adjust their prompts to the changing needs of the pupils. Thus, teacher prompting behaviors can be used as an efficient and successful means of helping children with reading difficulties master complex reading strategies.

References

Applebaum, S. and Cox, V. A Not So Ugly Friend. New York: Holt, Rinehart, and Winston, 1973.

Barr, R. The effect of instruction on pupil reading strategies. Reading Research Quarterly, 1975, 10, 555-582.

Biemiller, A. J. The development of the use of graphic and contextual information as children learn to read. Reading Research Quarterly, 1970, 6, 75-96.

Blance, E. and Cook, A. Monster Books. Glendale, California, Bowmar Publishing Co., 1973.

Bond, G. L. and Dykstra, R. The cooperative research program in first grade reading instruction. Reading Research Quarterly, 1967, 2, 5-126.

Brady, M. E. Prompting: A skill for helping children in oral reading, Tips for teachers, Module 11. Bloomington, Indiana: Center for Innovation in Teaching the Handicapped, 1975.

Brady, M. E., Lynch, W., and Cohen, D. Oral Reading Observation System: Observer's Training Manual. Bloomington, Indiana: Center for Innovation in Teaching the Handicapped, in preparation.

Cohen, A. S. Oral reading errors of first grade children taught by a code emphasis approach. Reading Research Quarterly, 1975, 10, 616-650.

Frick, T. and Semmel, M. I. Observational records: Observer agreement and reliabilities. Paper presented at the American Educational Research Association Convention, Chicago, Illinois, April, 1974.

Goodman, K. S. A linguistic study of cues and miscues in reading. Elementary English, 1965, 42, 639-643.

Goodman, Y. and Burke, C. Reading Miscue Inventory. New York: MacMillan Co., 1972.

Johnson, I. M. et al. New Open Highways Series. Glenview, Illinois: Scott Foresman and Co., 1974.

Levitt, E. Higher-order and lower-order reading responses of mentally retarded and non-mentally retarded children at the first grade level. American Journal of Mental Deficiency, 1972, 77, 13-20.

Lynch, W. and Epstein, L. An experimental test of an attentional cueing technique in aiding mildly retarded children's recall of reading vocabulary. Bloomington, Indiana: Center for Innovation in Teaching the Handicapped, 1974.

McCracken et al. Lippincott's Basic Reading. Philadelphia: J. B. Lippincott Co., 1963.

Quirk, T. J., Nalin, K. B., and Weinberg, S. F. The classroom behavior of teachers during compensatory reading instruction. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Ill., 1974.

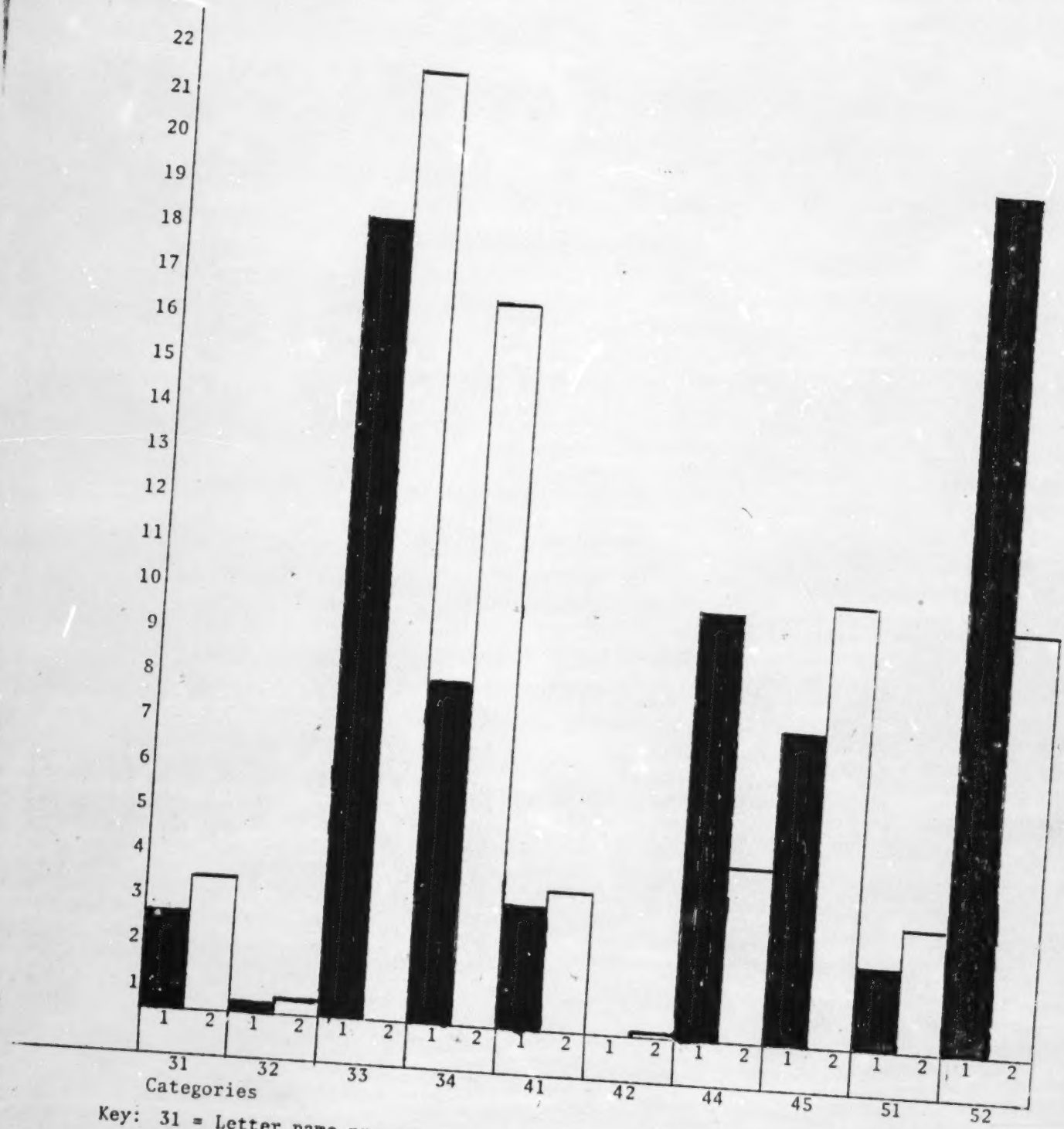
Ward, B. A. and Skailand, D. B. Minicourse 18: Teaching reading as decoding, Teacher's Handbook. New York: MacMillan Education Services, 1973.

Weber, R. M. A linguistic analysis of first grade errors. Reading Research Quarterly, 1970a, 5, 428-451.

Weber, R. M. First graders' use of grammatical context in reading. In H. Levin and J. P. Williams (Eds), Basic studies on reading. New York: Basic Books, 1970b, 147-163.

Woodcock, R. W. and Dunn, L. M. Efficacy of several approaches for teaching reading to the educable mentally retarded. U.S. Office of Education, Project No. 5-0392, Nashville: George Peabody College for Teachers, 1967.

Figure 1. The occurrence (in percent) of ten categories of teacher prompts given to high and low groups of readers.



Key: 31 = Letter name prompts
32 = Spelling
33 = Structural
34 = Attention
41 = Isolated sounds
42 = Sound out word
44 = Patterns (Word families)
45 = Sounds within words/phonics rules
51 = Word meaning
52 = Context

Group 1 (in black) = low level readers; Group 2 (in white) = high level readers

Table 1
Pupil Demographic Information
in Rank Order by Group

Tutor/Pupil#	Age at time of study	Sex	Grade	Total Reading Woodcock Score	Book level	Readibility*	$\bar{X}$ Score**
Group 1							
1	10.9	M	3	1.4	1 C	(.8)	1.1
2	12.6	M	6	1.7	H.S.	(1.0)	1.3
3	8.5	M	2	1.7	M.B.	(1.0)	1.3
4	8.8	F	2	2.0	2 B	(2.0)	2.0
5	8.7	F	2	2.3	2 B	(2.0)	2.1
6	8.11	M	3	2.9	4.0	(3.2)	3.0
7	8.2	F	2	2.8	4.0	(3.2)	3.0
8	9.4	M	3	3.0	4.0	(3.2)	3.1
9	9.6	M	3	2.7	4.0	(4.0)	3.3
Group 2							
10	9.5	F	3	3.4	4.0	(3.2)	3.3
11	10.4	M	3	3.6	3.0	(3.0)	3.3
12	8.3	M	2	3.9	4.0	(3.2)	3.5
13	9.9	M	3	3.6	4.0	(3.2)	3.5
14	9.4	M	2	3.4	4.0	(3.2)	3.7
15	9.11	M	4	3.4	I	(4.0)	3.7
16	13.3	M	6	3.5	I	4.0	3.7
17	8.1	M	3	3.6	I	4.0	3.8
18	9.8	F	3	3.6	J	5.0	4.3
19	9.7	M	4	4.9	J	5.0	4.9

I = Lippincott level I

J = Lippincott level J

MB = Monster Books

HS = Holt Satellite

* = These levels were computed using the Harris and Jacobson's readability formulas 1 and 2.

**$\bar{X}$ Score based on total reading and readability level.

Table 2

Analysis of Variance Results for Percents of
All Prompt Categories, Correct Responses and Exact Word Responses

Variable	Source	MS	Df	F-Ratio	P
% of Total Prompts	Groups	.694	1.	.070	.7901
	Error (G)	9.928	17.		
	Prompts	815.307	9.	36.554	.0000*
	GP	111.785	9.	5.012	.0000*
	Error (P)	22.304	153.		
% Correct Responses	Groups	821.053	1.	4.784	.0409*
	Error (G)	171.612	17.		
	Prompts	981.312	9.	6.227	.0000*
	GP	193.125	9.	1.225	.2826
	Error (P)	157.597	153.		
% Exact Word Responses	Groups	1794.182	1.	5.343	.0319*
	Error (G)	335.830	17.		
	Prompts	3791.755	9.	9.127	.0000*
	GP	379.003	9.	.912	.5167
	Error (P)	415.422	153.		

*p significant at .05 level

Table 4

Trial Means and Group by Trial Means
for Percent of Occurrance of All Prompts

Prompt	31	32	33	34	41	42	44	45	51	52
$\bar{X}$	3.0	.68	19.68	12.42	3.36	.05	7.10	8.89	2.73	14.57
G1	2.55	.66	18.11	8.0	3.22	0	10.0	7.44	2.22	19.66
G2	3.4	.70	21.10	16.4	3.50	.10	4.5	10.20	3.20	10.00

Table 3

Means and Standard Deviations for Percents of Prompts Correct Responses and Exact Word Responses for all Ss by Group

Prompt		Percent		Correct Response		Exact Word	
		G1	G2	G1	G2	G1	G2
31	$\bar{X}$	2.555	3.400	0	2.500	26.777	24.100
	SD	(1.509)	(2.914)	0	(7.906)	(32.733)	(23.858)
32	$\bar{X}$	.666	.700	0	3.300	11.555	23.100
	SD	(1.414)	(1.252)	0	(10.436)	(24.820)	(41.305)
33	$\bar{X}$	18.111	21.100	18.444	24.500	30.111	38.600
	SD	(9.400)	(6.208)	(9.888)	(11.636)	(8.343)	(16.119)
34	$\bar{X}$	8.000	16.400	.222	.700	33.555	56.100
	SD	(4.770)	(6.433)	(.667)	(1.494)	(11.348)	(10.203)
41	$\bar{X}$	3.222	3.500	3.111	14.000	28.666	31.900
	SD	(3.346)	(4.353)	(6.353)	(20.656)	(28.777)	(22.368)
42	$\bar{X}$	0	.100	0	0	0	9.900
	SD	0	.316	0	0	0	(31.307)
44	$\bar{X}$	10.000	4.500	8.111	23.800	42.333	45.100
	SD	(5.025)	(3.171)	(11.868)	(22.039)	(14.491)	(28.696)
45	$\bar{X}$	7.444	10.200	2.222	11.900	35.000	36.700
	SD	(3.972)	(5.029)	(3.346)	(16.623)	(9.573)	(22.386)
51	$\bar{X}$	2.222	3.200	12.333	7.500	41.777	25.700
	SD	(1.394)	(3.327)	(32.741)	(12.938)	(39.912)	(25.082)
52	$\bar{X}$	19.666	10.000	10.222	8.100	37.333	35.600
	SD	(6.305)	(7.513)	(5.974)	(9.758)	(15.516)	(22.555)

Column Key: G_1 = Group 1 -- lower reading level.

G_2 = Group 2 -- higher reading level.

Row Key:

31 = Letter name prompts
32 = Spelling
33 = Structural
34 = Attention
41 = Isolated sounds
42 = Sound out word
44 = Patterns (Word families)
45 = Sounds within words / phonics rules
51 = Word meaning
52 = Context

Appendix A

Codes and Definitions of All OROS Categories

Category 1: Target Pupil: Exact Oral Reading

Category 2_ _: Target Pupil: Miscues

21_ Meaning Change
22_ No/Low Meaning Change

_ _0 No Response/Don't Know
_ _1 Sounding or Naming Letter(s)
_ _2 No/Low Similarity
_ _3 High Similarity
_ _4 Dialect Based
_ _5 Insertion/Omission

Category 3_ _: Teacher: Look Prompts

31_ Letter Name(s)
32_ Spelling
33_ Structural
34_ Attention

_ _1 Direct
_ _2 Indirect

Category 4_ _: Teacher: Sound Prompts

41_ Isolated Sounds
42_ Sound Out Word
43_ Unnatural Stress
44_ Pattern
45_ Sounds Within Words/Phonics Rules

_ _1 Direct
_ _2 Indirect

Category 5_ _: Teacher: Meaning Prompts

51_ Word Meaning
52_ Context

_ _1 Direct
_ _2 Indirect

Category 6_ : Pupil: Answers to Prompts

61 Incorrect Answer/Word
62 Correct Answer
63 Self-Correction
64 Exact Word/Meaningful Miscue
65 Non-target Pupil Prompts/Answers

Category 7: Teacher: Feedback and Management

71 Positive Feedback
72 Negative Feedback
73 Management
74 Turns to Another Pupil

Category 8: Teacher: Telling

Category 9: Non-Oral Reading/Other

Figure 1.

The Oral Reading Observation System Categories: Full Version

Category 31 - Letter Name(s) Teacher Prompts. The teacher names, or asks the pupil to name, a letter (or several letters) within the text word or miscue.

Category 311 - Letter Name(s) Teacher Prompts. The teacher names a letter (or several letters) within the text word or miscue.

Category 312 - Letter Name(s) Teacher Prompts. The teacher asks the pupil to name a letter (or several letters) within the text word or asks if a letter appears in it.

Category 32 - Spelling Teacher Prompts. The teacher spells, or asks the pupil to spell, the text word or miscue.

Category 321 - Spelling Teacher Prompts. The teacher spells the text word or miscue for the pupil.

Category 322 - Spelling Teacher Prompts. The teacher asks the pupil to spell the text word or miscue.

Category 33 - Structural Teacher Prompts. The teacher tells, or asks the pupil to tell, about the text word's structural components, i.e., its syllables, base or inflected ending, or kind of word (compound or contraction).

Category 331 - Structural Teacher Prompts. The teacher tells the pupil one or more syllables of the text word, its base or inflected ending, or what kind of compound or contraction it is.

Category 332 - Structural Teacher Prompts. The teacher simply asks the pupil to tell a syllable of the text word or its base or inflected ending or tells the pupil the word has more than 1 syllable or is a compound or contraction.

Category 34 - Attention Teacher Prompts. The teacher focuses the pupil's visual attention on all of a text word.

Category 341 - Attention Teacher Prompts. The teacher focuses the pupil's visual attention on all of a text word.

Category 41 - Isolated Sounds Teacher Prompts. The teacher says, or asks the pupil to say, the sound for a letter(s) in the text word or miscue in isolation.

Category 411 - Isolated Sounds Teacher Prompts. The teacher says in isolation the sound for a letter(s) in the text word or miscue.

Definitions of All OROS Categories

This Appendix lists the definitions of all the categories in OROS for easy reference whenever you have a question about a code. All categories are defined in the same order as they appear in this manual. Italicized definitions refer to codes which only appear in the Full Version of OROS. If you learned OROS-S, skip those definitions in italics. If you learned the full version of OROS, all definitions apply.

Category 1. The pupil whom the teacher has asked to read is reading words in the story exactly as they appear.

Category 21. The pupil's miscue changes the intended meaning of the sentence.

Category 22. The pupil's miscue changes the intended meaning of the sentence slightly or not at all.

Category 210. The pupil doesn't attempt the text word at all by stopping reading or saying he doesn't know the word.

Category 211. The pupil makes an isolated sound for one or more letters in the text word ("buh-ă-tuh" for BAT) or names one or more letters in the text word ("B-A-T" for BAT).

Category 2_2. The pupil substitutes a word that has less than half of the letters in the text word.

Category 2_3. The pupil substitutes a word that has at least half of its letters the same as letters in the text word.

Category 224. The pupil's miscue occurs because he is translating text grammar or words into his own language.

Category 2_5. The pupil omits a word which is in the text or inserts a word not in the text.

Category 31. The teacher names, or asks the pupil to name, a letter (or several letters) within the text word or miscue.

Category 412 - *Isolated Sounds Teacher Prompts. The teacher asks the pupil to say in isolation the sound for a letter(s) in the text word or miscue.*

Category 42 - Sound Out Word Teacher Prompts. The teacher sounds out, or asks the pupil to sound out, all or most of the text word by saying an isolated sound for each letter.

Category 421 - *Sound Out Word Teacher Prompts. The teacher sounds out all or most of the text word by saying an isolated sound for each letter.*

Category 422 - *Sound Out Word Teacher Prompts. The teacher asks the pupil to sound out all or most of the text word by saying an isolated sound for each letter.*

Category 43 - Unnatural Stress Teacher Prompts. The teacher says in isolation the beginning consonant(s) of the text word but says the rest of the text word in a natural manner.

Category 431 - *Unnatural Stress Teacher Prompts. The teacher says in isolation the beginning consonant(s) of the text word but says the rest of it in a natural manner.*

Category 44 - Pattern Teacher Prompts. The teacher tells, or asks the pupil to say, a word which rhymes with the text word, (or says a group of letters in it) then substitutes a consonant from the text word into the rhyming word and asks the pupil to say it.

Category 441 - *Pattern Teacher Prompts. The teacher tells the pupil a word which rhymes with the text word or tells how to say a group of letters in it.*

Category 442 - *Pattern Teacher Prompts. The teacher asks the pupil to say a word which rhymes with the text word (or some of the letters) and then substitutes a consonant from the text word and asks the pupil to say it.*

Category 45 - Sounds Within Words, Phonics Rules Teacher Prompts. The teacher tells, or asks the pupil to tell, what sound(s) the letter(s) in the text word make by saying another word containing the same sound or by telling, or asking, about a phonics rule.

Category 451 - *Sounds Within Words, Phonics Rules Teacher Prompts. The teacher tells what sound(s) the letter(s) in the text word make by saying a word which contains the same sound or tells a phonics rule.*

Category 452 - *Sounds Within Words, Phonics Rules Teacher Prompts. The teacher asks the pupil to say a word containing a same letter(s) as the text word or asks about a phonics rule.*

Category 51 - Meaning Teacher Prompts. The teacher tells, or asks the pupil to tell, the meaning of a text word.

Category 511 - *Meaning Teacher Prompts. The teacher gives the meaning of a text word.*

Category 512 - *Meaning Teacher Prompts. The teacher asks the pupil what the meaning of a text word is.*

Category 52 - Context Teacher Prompts. The teacher gives, or asks the pupil to give, the meaning of the sentence or story to help the pupil figure out text words.

Category 521 - *Context Teacher Prompts. The teacher gives the meaning of the sentence or story to help the pupil figure out a text word.*

Category 522 - *Context Teacher Prompts. The teacher asks the pupil to use the meaning of the sentence or story to figure out a text word.*

Category 61 - Incorrect Answer/Word. The target pupil incorrectly answers a teacher prompt, attempts the text word unsuccessfully, or says he does not know the answer.

Category 62 - Correct Answer. The target pupil correctly answers a teacher prompt without giving the text word or no a meaning change miscue for the text word.

Category 63 - Self-Correction. The target pupil, after making a miscue, corrects his own miscue with no help from the teacher or another pupil.

Category 64 - Exact Word/No Meaning Change Miscue. The target pupil gives the exact text word or a no meaning change miscue after a teacher or other pupil prompt.

Category 65 - Non-Target Pupil Prompts/Answers. A non-target pupil in the reading group either gives information about the word on which the target pupil has miscued (by prompting or telling the word) or answers a teacher prompt.

Category 71 - Positive Feedback/Encouragement. The teacher praises the target pupil or encourages him to attempt a word.

Category 72 - Negative Feedback. The teacher tells the target pupil that a particular answer or miscue is incorrect.

Category 73 - Management. The teacher instructs the target pupil to begin reading, tells him to read slowly or carefully, directs the pupil where to read, or asks the pupil to repeat a sentence because (a) the pupil was not understood, (b) the teacher wants the pupil to read the sentence with no miscues, or (c) the teacher wants the pupil to read with more expression.

Category 74 - Turns to Another Pupil. The teacher turns to a non-target pupil for the answer to a prompt, asks any non-target pupil to respond or asks the non-target pupil to help the target pupil.

Category 8 - Teacher Telling. The teacher tells the pupil the unknown word with a normal pronunciation.

Category 9 - Non-Oral Reading/Other. The teacher, target pupil, or non-target pupil is not talking about word recognition during oral reading; there is too much confusion to code; or the teacher reads orally what the pupil has not attempted.